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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,893	05/11/2006	Janne Johannes Peisa	3772-31	3456
23117 7590 11/13/2008 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
BATISTA, MARCOS				
ART UNIT		PAPER NUMBER		
2617				
MAIL DATE		DELIVERY MODE		
11/13/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/578,893

Applicant(s)

PEISA ET AL.

Examiner

MARCOS BATISTA

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Art Unit- Location

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.
2. This Action is in response to Applicant's amendment filed on 08/08/2008. Claims 15-28 are still pending in the present application. This Action is made **FINAL**.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isnard et al. (US 20030219005 A1), hereafter "Isnard," in view of Landaveri et al. (US 20030103508 A1), hereafter "Landaveri."

Consider claim 15, Isnard discloses a method of transporting data over the lub/lur interface of a UMTS Terrestrial Radio Access Network, UTRAN, in which frame synchronization at the receiving node (1) is achieved by delaying the sending of data frames from the sending node (2) by an offset delay, the method comprising: for data

services, defining an initial offset delay and dynamically varying the delay at the sending node based upon time of arrival feedback received from the receiving node, to optimize the offset delay value (see **figs. 1 and 4, pars. 0049 lines 9-11 and 0050 lines 1-6, 27-35**).

Isnard discloses the invention of claim 15 above, but does not particular refer to for speech services, defining said offset delay as a substantially fixed delay.

Landaveri, in analogous art, teaches for speech services, defining said offset delay as a substantially fixed delay (see **par. 0054 lines 27-31**).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Isnard and have it include for speech services, defining said offset delay as a substantially fixed delay, as taught by Landaveri. The motivation would have been in order to guarantee the delivery of real-time voice frame with minimal interruption (see **par. 0054 lines 27-31**).

Consider claim 16, Isnard discloses a node (1) for use in a UMTS Terrestrial Radio Access Network, UTRAN, the node comprising: means for transmitting data frames to one or more receiving nodes (2) via lub/lur interfaces with an initial timing offset (see **figs. 1 and 4, pars. 0049 lines 9-11 and 0050 lines 1-6, 27-35**); and means for dynamically varying the timing offset for data services based upon time of arrival

feedback received from the receiving node(s) (see **figs. 1 and 4, pars. 0049 lines 9-11 and 0050 lines 1-6, 27-35**).

Isnard discloses the invention of claim 16 above, but does not particular refer to maintaining the timing offset substantially constant for speech services.

Landaveri, in analogous art, teaches maintaining the timing offset substantially constant for speech services (see **par. 0054 lines 27-31**).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Isnard and have it include maintaining the timing offset substantially constant for speech services, as taught by Landaveri. The motivation would have been in order to guarantee the delivery of real-time voice frame with minimal interruption (see **par. 0054 lines 27-31**).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 17-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Isnard et al. (US 20030219005 A1).

Consider claim 17, Isnard discloses a method of optimizing the timing offsets with which data frames are transmitted over the lur/lub interfaces of a UMTS Terrestrial Radio Access Network, UTRAN, the method comprising: for a given lur/lub interface or set of lur/lub interfaces over which identical user plane data is to be sent, defining a duration of a data frame receiving window for use by the receiving node(s) (**see figs. 1 and 4, par. 0057**); transmitting data frames from a sending node with an initial timing offset (**see pars. 0059 and 0063**); reducing the timing offset at the sending node in a stepwise manner (**see fig. 4, par. 0034 – the calculation is done by either extending or reducing the transmission time**); and adjusting the timing offset at the sending node in response to the receipt of one or more late time of arrival error reports at the sending node (**see par. 0058 lines 10-14**).

Consider claim 18, Isnard discloses wherein upward adjustments in the timing offset are carried out in steps which are greater than the steps by which the timing offset is reduced (see par. 0056).

Consider claim 24, Isnard discloses wherein the sending node is one of a Radio Network Controller, RNC, or a Node B, and each receiving node is the other of an RNC or Node B (see fig. 5, par. 0055).

Consider claim 25, Isnard discloses wherein said initial timing offset is sufficient to ensure a likelihood that the frames will be received at the or each receiving node within the defined receiving window (see pars. 0059 and 0060).

Consider claim 19, Isnard discloses a method of optimizing the timing offsets with which data frames are transmitted over the lur/lub interfaces of a UMTS Terrestrial Radio Access Network, UTRAN, the method comprising (**see figs. 1 and 4**): for a given lur/lub interface or set of lur/lub interfaces over which identical user plane data is to be sent, defining a duration of a data frame receiving window for use by the receiving node(s) (**see par. 0057**); transmitting data frames from a sending node with an initial timing offset (**see pars. 0059 and 0063**); at the or each receiving node, collecting and/or computing time of arrival statistics for received data frames (**see fig. 5, par. 0055 lines 11-17**); periodically reporting said statistics to the sending node (**see pars. 0032 and 0061**); and adjusting the timing offset at the sending node on the basis of the received statistics (**see par. 0061**).

Consider claim 20, Isnard discloses wherein the collected statistics include one or more of: the mean, minimum, maximum, and variance of times of arrival for data frames received during some time period (see pars. 0033 and 0040).

Consider claim 21, Isnard discloses sending from the sending node to the or each receiving node instructions identifying the statistics to be collected at the receiving node and sent to the sending node (see fig. 7, pars. 0033 and 0067).

Consider claim 22, Isnard discloses wherein said instructions identify the regularity with which the statistics must be sent, or events defining when the statistics should be sent (see fig. 7, par. 0067).

Consider claim 23, Isnard discloses sending polling requests from the sending node to each receiving node instructing the return of statistics (see pars. 0040 and 0067).

Consider claim 26, Isnard discloses a node (1) for use in a UMTS Terrestrial Radio Access Network, UTRAN, the node comprising: means for transmitting data frames to one or more receiving nodes via lub/lur interfaces with an initial timing offset (see figs. 1 and 4, pars. 0049 lines 9-11 and 0050 lines 1-6, 27-35); means for reducing the timing offset in a stepwise manner (see fig. 4, par. 0034 – the calculation is done by either extending or reducing the transmission time); and means for adjusting the timing offset in response to the receipt of late time of arrival error reports (see par. 0058).

Consider claim 28, Isnard discloses wherein the node is a Radio Network Controller or a Node B (see fig. 1, par. 0055).

Consider claim 27, Isnard discloses a node for use in a UMTS Terrestrial Radio Access Network, UTRAN, the node comprising: means for transmitting data frames to one or more receiving nodes via lub/lur interfaces with an initial timing offset (**see figs. 1 and 4, pars. 0049 lines 9-11 and 0050 lines 1-6, 27-35**); and means for receiving statistical data sent periodically from the or each receiving node and relating to the times of arrival of data frames at respective receiving nodes, and for adjusting the timing offset on the basis of the received statistics (**see pars. 0032 and 0061**).

Response to Arguments

7. Applicant's arguments filed on 08/08/2008 have been fully considered but they are not persuasive.

After carefully revising the office action pertinent to the present response and remarks, 3 main point(s) have been identified:

1) The Applicant states that Isnard makes no distinction between data and voice services; Landaveri does not disclose defining a substantially fixed offset delay in order to achieve frame synchronization and make no reference to radio access network and that Nothing in Isnard or Landaveri would have led the person of ordinary skill in the art to define a substantially fixed offset delay for speech services in a UTRAN while

applying a dynamically varying offset delay for data services in the UTRAN (refer to page 7 lines 11-19 and page 8 lines 1-4 of the Applicant's Remarks);

2) The Applicant states that Isnard only adjusts the timing offset when a frame is received outside of the window while the claimed invention provides that the value of the timing offset is reduced until a report is received that the frame is received outside of the window, which permits optimization of the offset delay (refer to page 8 lines 16-18 of the Applicant's Remarks).

3) The Applicant states that Isnard fails to disclose that the receiving node, (corresponding to a Node B in Isnard), maintains and calculates the time of arrival statistics (refer to page 8 lines 20-21 of the Applicant's Remarks).

Regarding point **1)**, the combination of Isnard and Landaveri clearly teaches the distinction between data and voice services as intended in the claimed invention (see pars. 0054 lines 27-31, 0058 lines 1-5, where Landaveri discusses maintaining a provide minimal delay for constant bit rate traffic, such as voice and video. This is in line with the claimed invention that uses synchronization to keep sensitive data jitter substantially constant (see page 4 par. 0004 of Applicant's specification). Further more, Landaveri does discuss an access radio network (see fig. 1, par. 0037). According to the above citations, it would have been obvious for a person skilled in the art to have

combined the teachings of Isnard and Landaveri for the purpose minimizing jitter in sensitive data transmission such as voice).

Regarding point **2)**, Isnard clearly teaches reducing the timing offset at the sending node in a stepwise manner (see pars. 0033 lines 1-6, 0034 lines 1-8, where Isnard discusses reducing the times of transmission from the RNC for the next data frames based on the synchronization parameters returned as sliding averages of the times of arrival of the last frames received at the RNC).

Regarding point **3)**, Isnard clearly teaches collecting and computing time of arrival statistics for received data frames (see par. 0055 lines 1-17, where Isnard discusses the calculating and obtaining an average of the time of arrival for each Node B, which is updated a each reception by the RNC).

Therefore, the argued features are written such that they read upon the cited reference(s).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Marcos Batista, whose telephone number is (571) 270-5209. The Examiner can normally be reached on Monday-Thursday from 8:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Rafael Pérez-Gutiérrez can be reached at (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Marcos Batista
/M. B./

/Rafael Pérez-Gutiérrez/
Supervisory Patent Examiner, Art Unit 2617

11/07/2008